

BASF Nutrition –
the healthy decision.

S.E.T. and ProSustain: How to realize consumer product sustainability



ProSustain™
Product Sustainability Standard

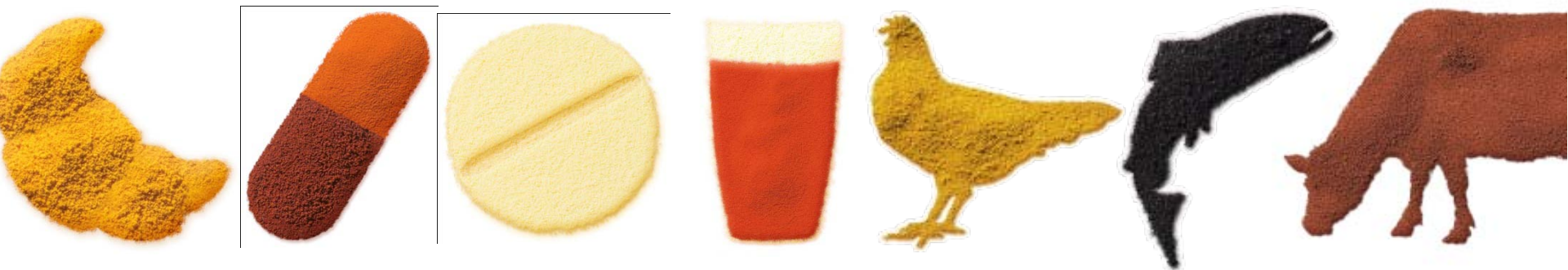


 **BASF**
The Chemical Company

Dr. Christoph Guenther, BASF SE,
Eco Labeling and Traceability Conference, 20.Jan 2011

■ Why Sustainability Now?

➤ Some Facts



1,2 billion cars
will drive on Earth by 2020.



An aerial night view of a city skyline, likely Hong Kong, showing a dense cluster of illuminated skyscrapers and residential buildings. The city is situated on a peninsula with a harbor in the background, where several boats are visible. The foreground shows the silhouettes of trees and a hillside.

**67 % of the world population
will live in cities by 2025.**

50 % more energy
will be needed in 2030.





9 billion people

will live on this planet by 2050.

In 2050 we need

70% more food



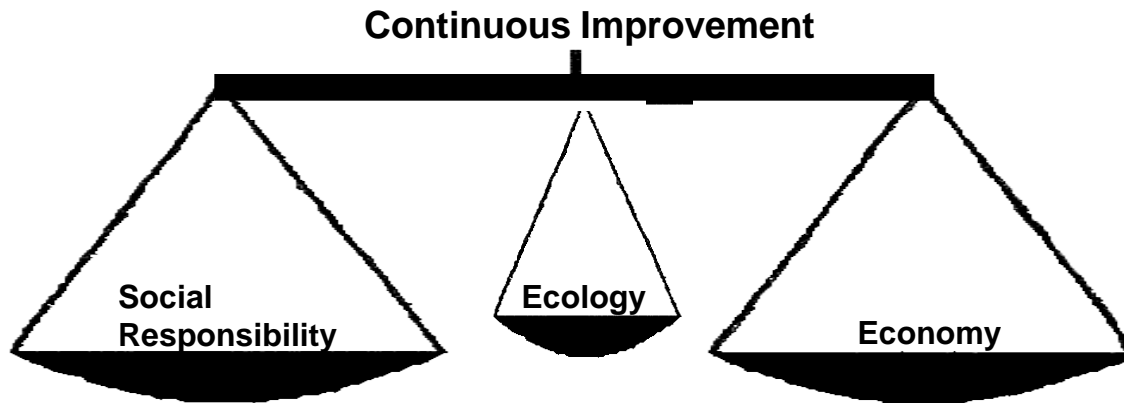
The Main Question:

How to feed and create an acceptable living standard for 9 billion people without destroying nature?

Consequence:

We have to act sustainable!!

What does sustainability mean?



Gro Harlem Brundtland

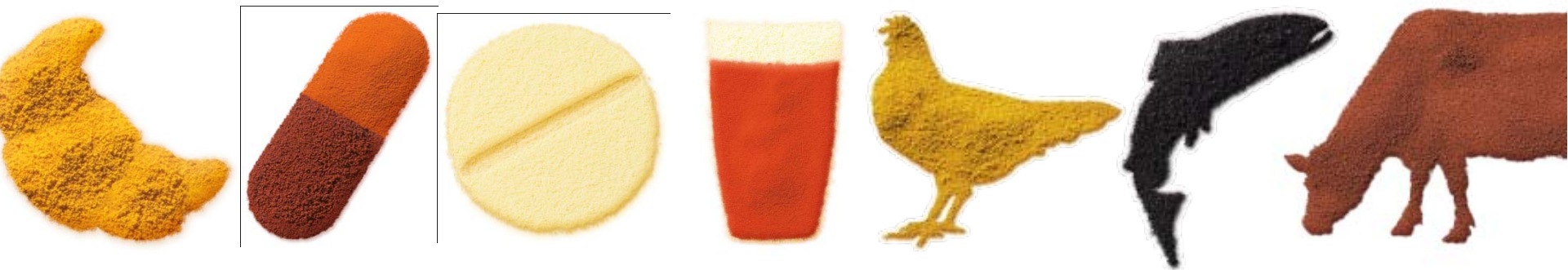


“Sustainable development is **development** that meets the **needs of the present** without compromising the ability of **future generations** to meet their own needs.



This definition implies more than ecology but also economic and social factors!

■ Reaction in the food market



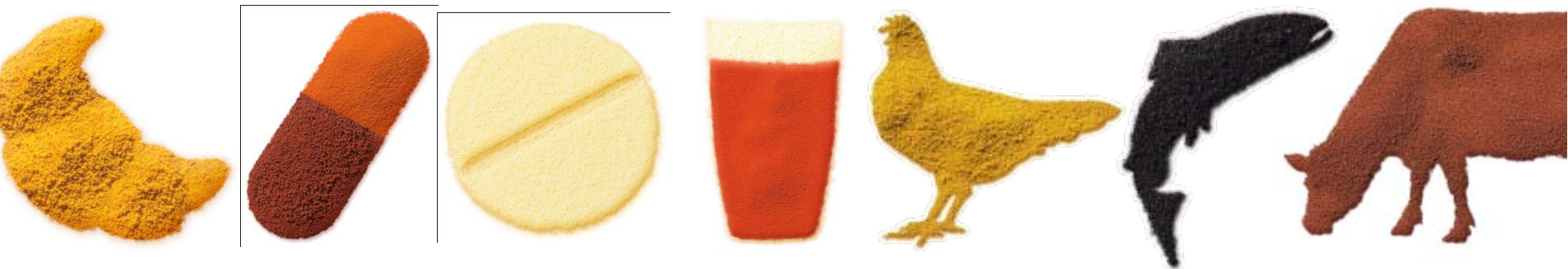
Examples of sustainability claims of retailers

- Tesco (UK) labels CO2 footprint on some consumer goods
- Casino (FR) prints already CO2 values on customer receipts for all products shopped
- WalMart (US) wants to install sustainability indices with their consumer goods
- REWE (DE) started with the ProPlanet products
 - Like “Strawberries from water saving agriculture” and many more products
 - Wants to offer sustainably produced meat
 - Asks for a sustainable development with conventional products
- Albert Heijn (NL) introduced “Better Leven” Brand
 - Animal welfare
- dm market (german drugstore) introduced eco efficient diapers

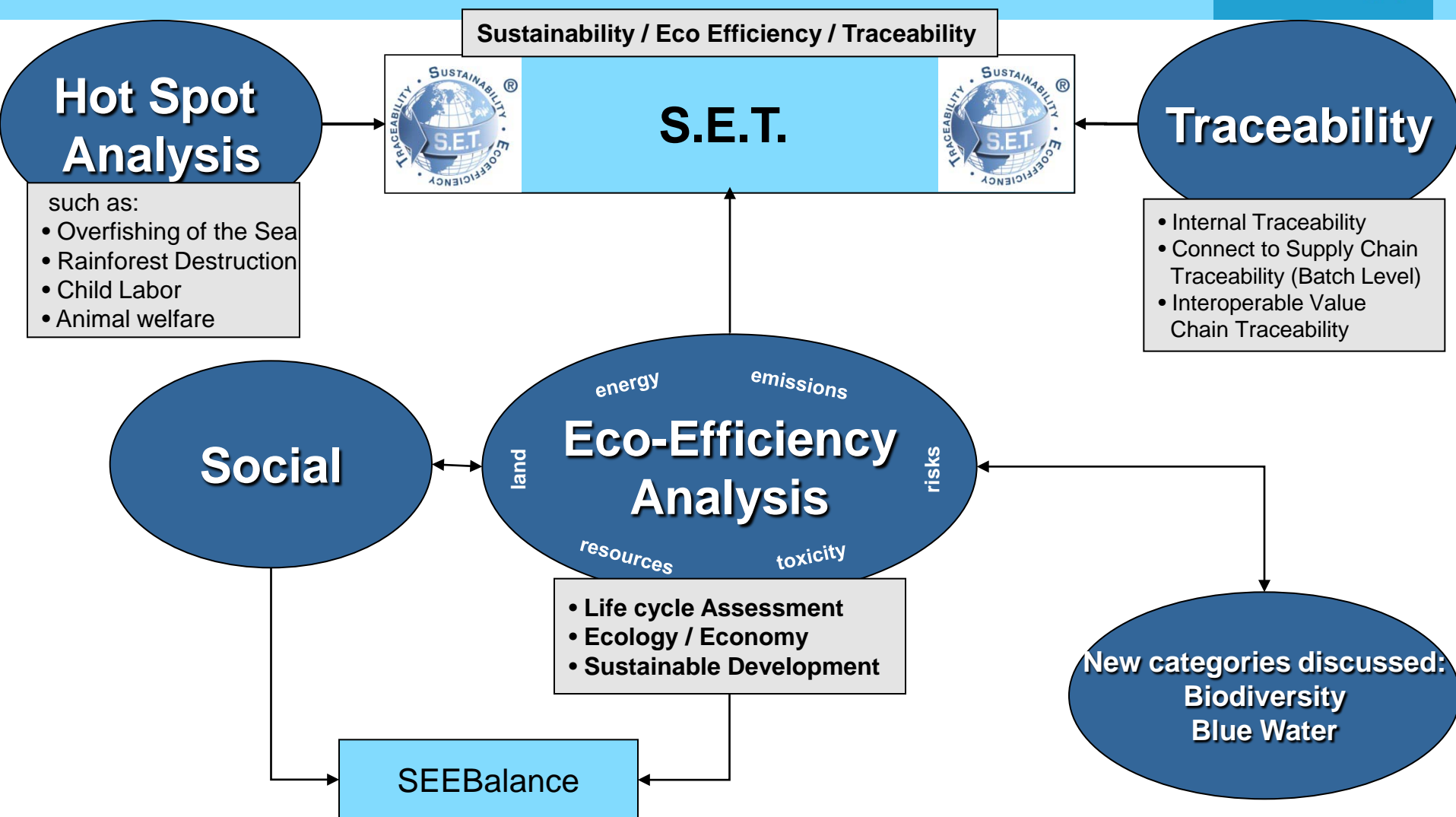


■ BASF answer to sustainability movements in the food value chain:

S.E.T. Initiative =>



S.E.T. Tools:

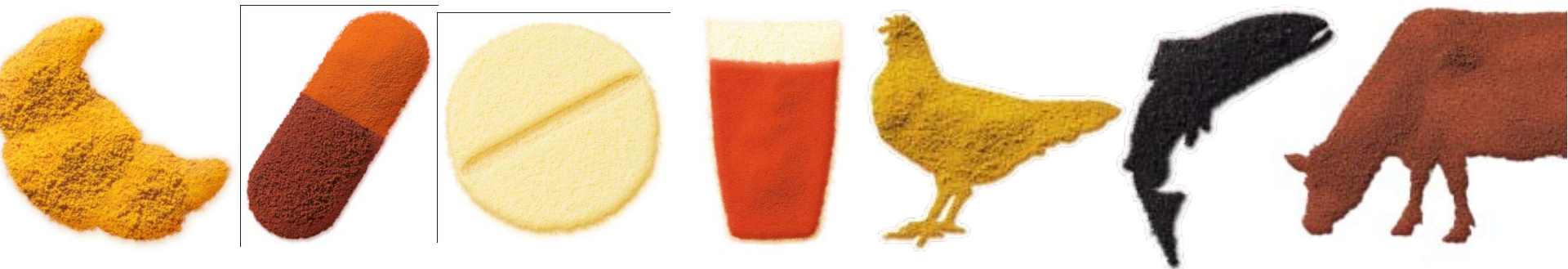


What is the eco efficiency analysis?

- **Ecological and economic aspects** are compared to alternative products or processes with equal weight in the assessment to fulfill the **customer benefit**.
- The products are analyzed from **different angles** with a „**cradle-to-grave**“-approach based on LifeCycleAnalysis-methodology (including the use phase).
- **(Future) scenarios** and effects of various action options are presented.
- Eco efficiency analysis (EEA) is a **standard** tool in the **BASF Group**; more than 400 analyses have been carried out.
- EEA of BASF is indepently certified by third parties:



Transparency with Traceability



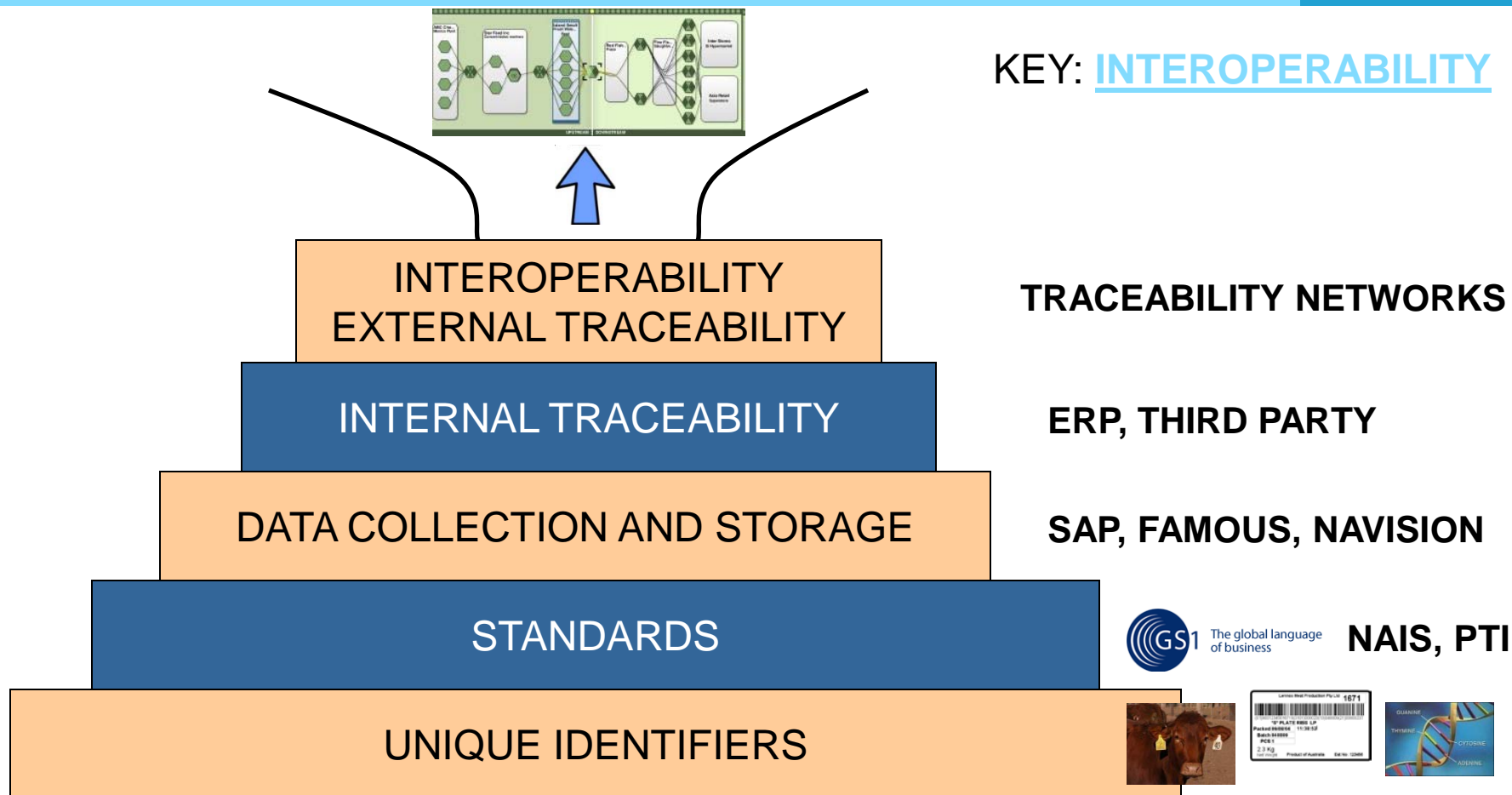
GTNet® from TraceTracker

- GTNet® is a subscription-based software provided by the Norwegian company TraceTracker.
- BASF Nutrition has been tracing its ingredients since 2005 through this network.

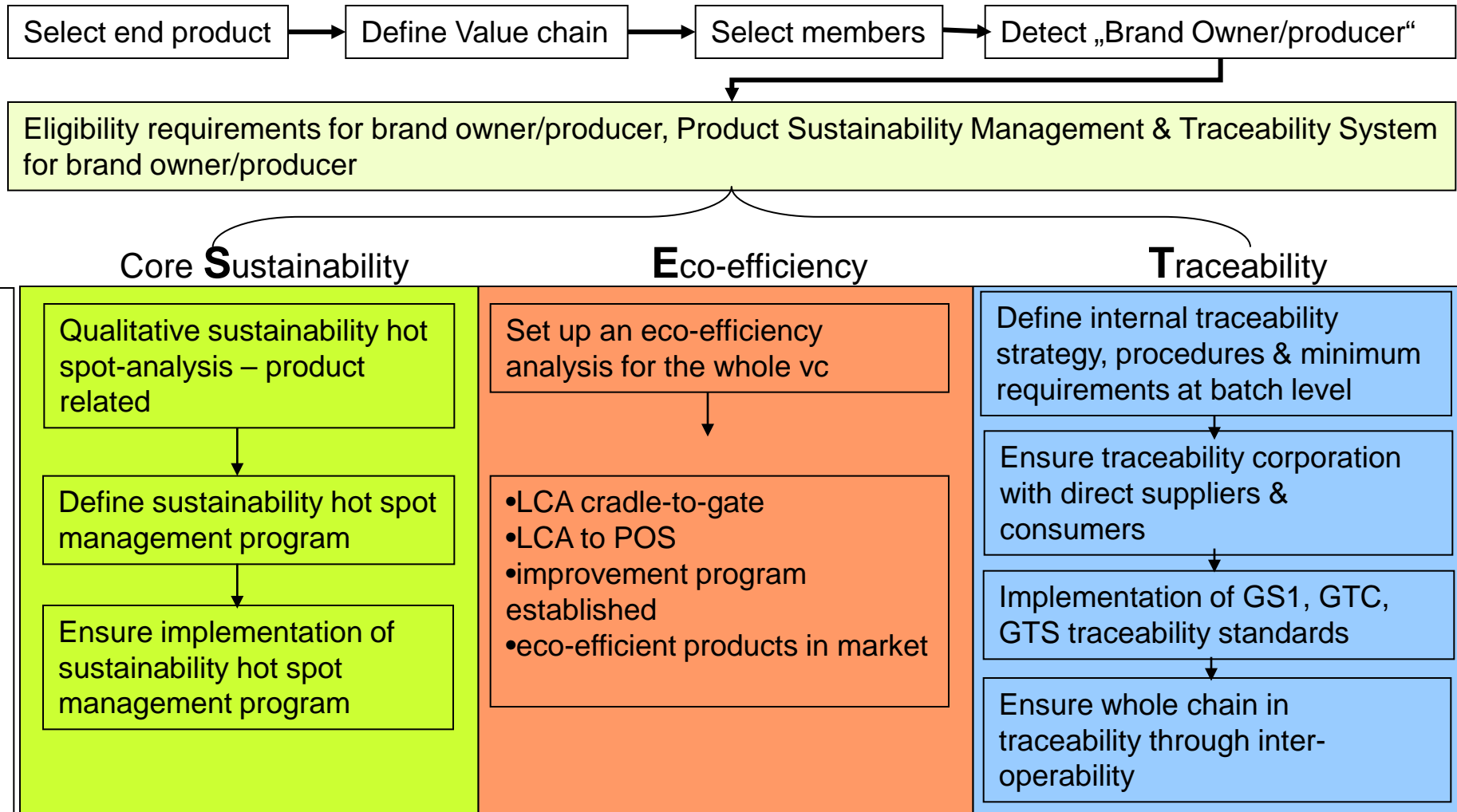
More information about GTNet® is available at <http://www.tracetracker.com>



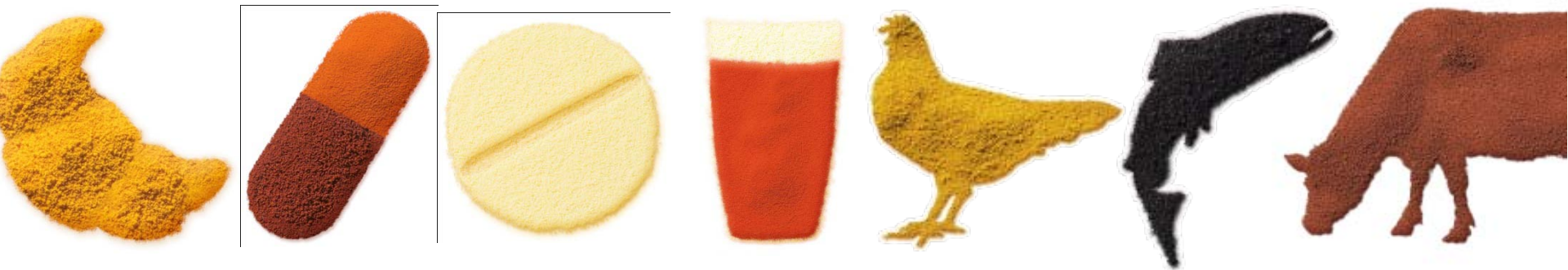
Traceability Building Blocks



How to create a S.E.T. Product?

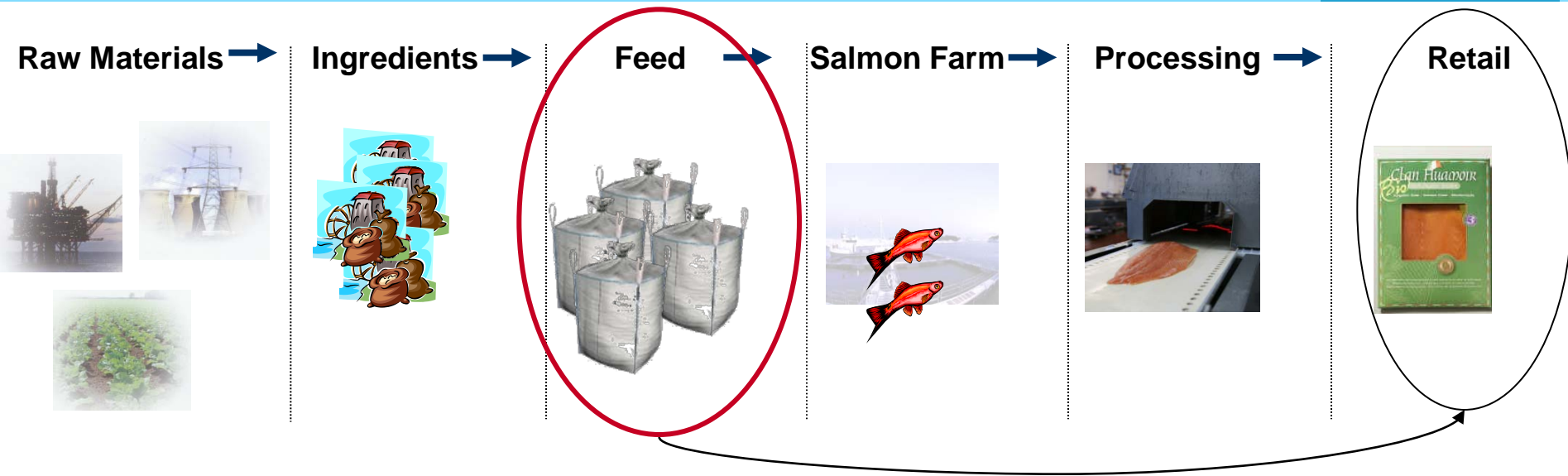


EEA Example: Feeding and growing salmon



Example: Value chain farmed fish

80% of ecological impact of salmon product: Feed.



Take out: If fish feed becomes more sustainable, this will have a major impact on the end product's sustainability.

Focus: How to make fish feed more sustainable?

Analysis for Sustainability Optimization

Example: Fish production

Determine demand-specific benefit

Production of 1000 kg of Salmon in the saltwater phase in Western Norway by growing from 100 g to 4000 g of harvesting weight in cage of 15000 cbm

Define comparable products

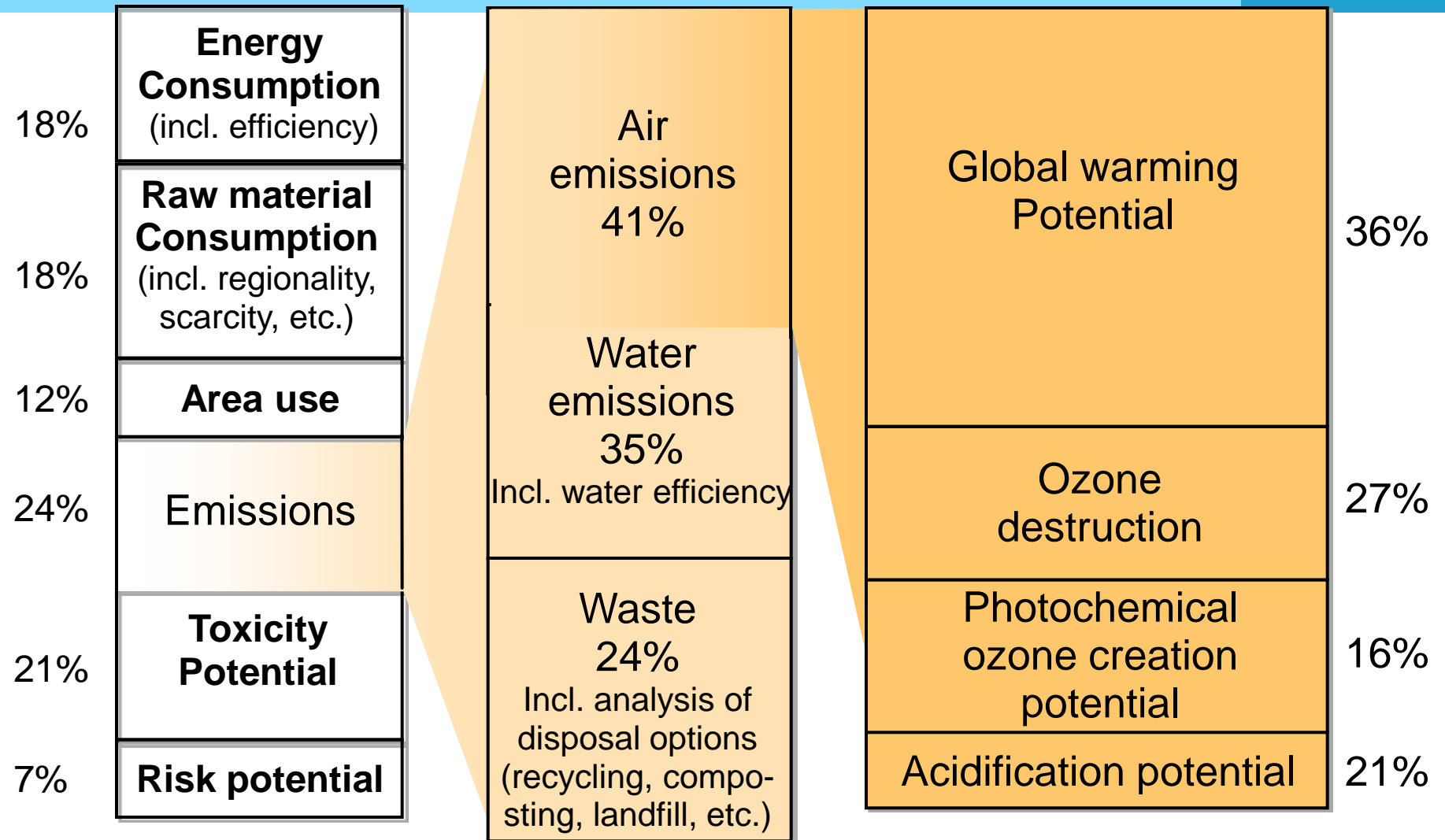
Industrial Standard, 2003

Marine Diet

High Quality, mainly vegetarian

Least Costs (LC), mainly vegetarian

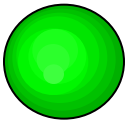
Eco-efficiency analysis: Determination of environmental impact



Analysis for Sustainability Optimization

Example: Fish production

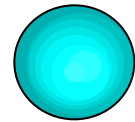
Industrial
Standard 2003



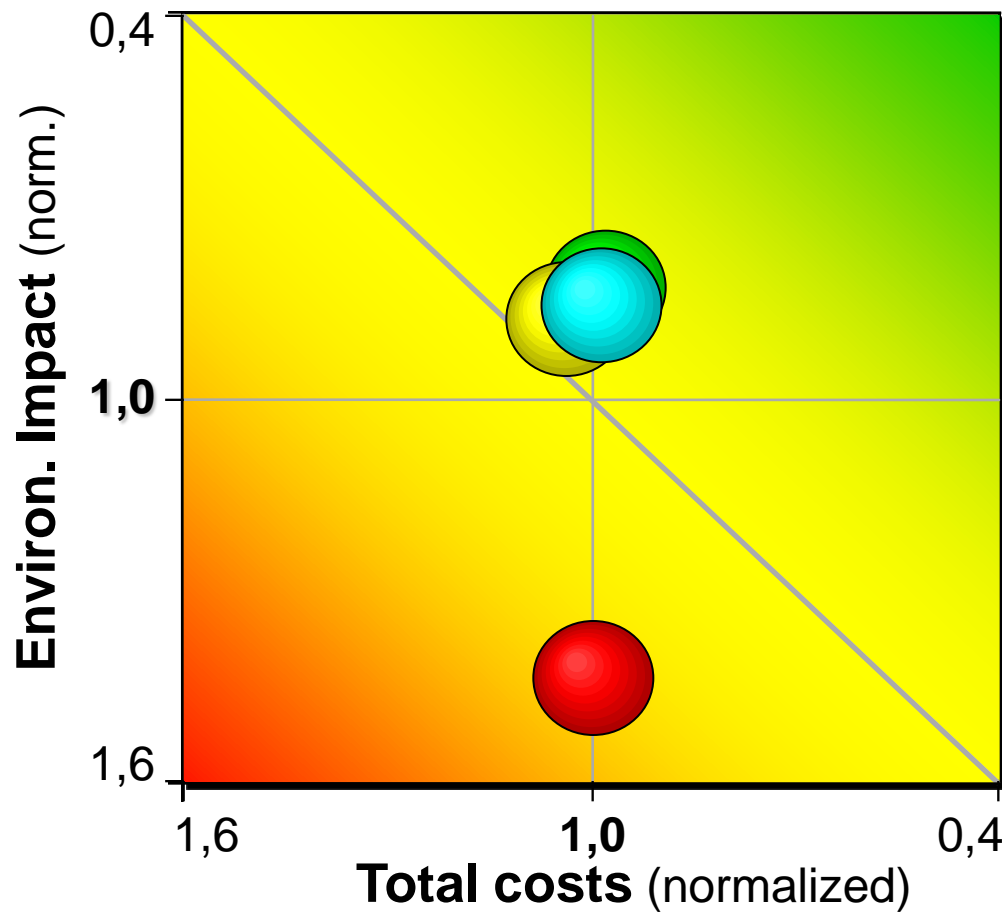
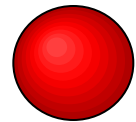
High Quality,
mainly vegetarian



Least Costs (LC),
mainly vegetarian



Marine Diet



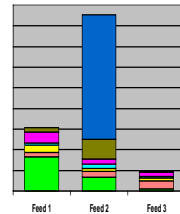
How a Feed Company Uses the BASF Eco-Efficiency Analysis

Linear Optimization at Feed Factory

Calculation for different feed compositions

Feed 1
Feed 2
Feed 3

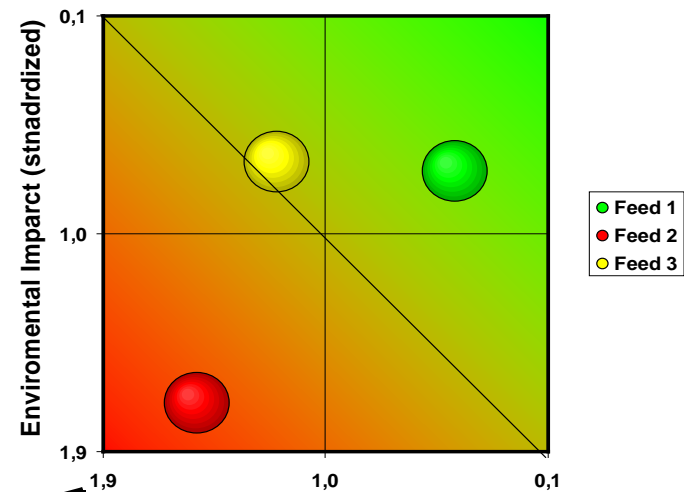
Ecological data for feed ingredients (e.g. fish oil)



Ressources

Calculation via online portal:
(Eco Efficiency Manager)

Eco Efficiency Portfolio



Energy used

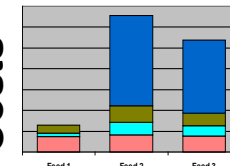
Emissions

Risks / Toxicity

Land use

Costs (standardized)

Costs



Example in salmon:

The screenshot displays the BIOSUSTAIN website interface. At the top, the BIOSUSTAIN logo is on the left, and the text "BIOMAR SUSTAINABLE DEVELOPMENT" is on the right. Below this is a navigation bar with links: INTRO, HOME (highlighted), BASIC, SUSTAINABLE RAW MATERIALS, OPTIMISED SUSTAINABILITY, and ABOUT BIOSUSTAIN. The main content area features a large pyramid diagram with five levels, each representing a different sustainability concept. The pyramid is blue and white, with a globe icon at the top. The levels are labeled as follows from top to bottom: EEA (Eco-Efficiency Analysis), RSPO (Roundtable on Sustainable Palm Oil), iffo (International Federation of Organic Agriculture Movements), GLOBALG.A.P. (Global Good Agricultural Practices), and RTRS (Roundtable for Responsible Tobacco Sourcing). The base of the pyramid is labeled "Legal compliance". To the right of the pyramid, there are four text boxes with arrows pointing to the corresponding levels: "Optimised sustainability" (pointing to EEA), "Sustainable raw materials" (pointing to RSPO), "Basic" (pointing to iffo), and "Legal compliance" (pointing to the base). Each text box contains a brief description of the concept. A "Read more" button is located to the left of the pyramid. At the bottom left, there is a "Disclaimer" section stating "Valid for BioMar North Sea only". At the bottom center, there is a "Click on a level to learn more" text. At the bottom right, there is a "Legal compliance" section stating "All BioMar activities are founded on national, regional and international laws and regulation."

BIOSUSTAIN BIOMAR SUSTAINABLE DEVELOPMENT

INTRO HOME BASIC SUSTAINABLE RAW MATERIALS OPTIMISED SUSTAINABILITY ABOUT BIOSUSTAIN

EEA
The purpose of EEA (Eco-Efficiency Analysis) is to harmonize economy and ecology. Eco-Efficiency Analysis is applied to minimize resource and energy consumption in producing our products and to keep emissions as low as possible.

Read more

Optimised sustainability
BioSustain provides tools and methods to measure sustainability of the whole value chain, and to enable sustainability improvement through optimisation of feeds, farming, processing and transportation to market.

Sustainable raw materials
The BioSustain programme requires sustainable sourcing. Suppliers must follow adequate standards and guidelines.

Basic
BioMar companies use certified management systems with improvement programmes and follow different guidelines; e.g. on social responsibility.

Legal compliance
All BioMar activities are founded on national, regional and international laws and regulation.

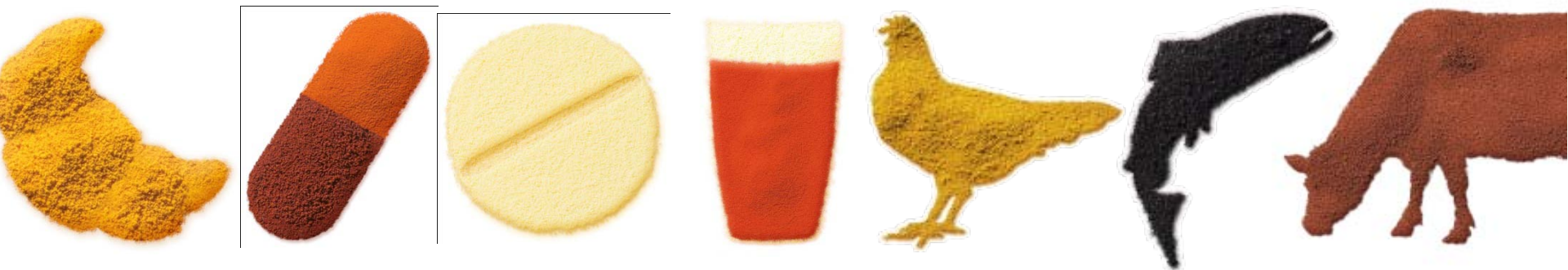
Disclaimer
Valid for BioMar North Sea only

Click on a level to learn more

For an interactive demo press button:

www.biosustain.no

■ Certification of Product Sustainability



ProSustain: Product Sustainability Standard



ProSustain™
Product Sustainability Standard

Helping better products grow in the marketplace
Public version

ProSustain Standard

- ProSustain is a product sustainability standard
 - Developed by DNV and BASF
- ProSustain is vertical, generally available
 - Asks for transparent and measurable sustainability
 - Induces sustainable development
 - Is the ideal complement to horizontal standards like IFS, GlobalGAP, BRC, etc...
- BASF's S.E.T. initiative helps complying with the ProSustain Product Sustainability standard

Structure of ProSustain

■ Part I: Eligibility requirements

- Applicable to **organizations** seeking to participate in the ProSustain™ certification scheme

■ Part II: Product Sustainability Management

- Applicable to organizations seeking to certify their **product sustainability management processes** and/or individual products against the ProSustain™ standard

■ Part III: Product Sustainability Performance

- Applicable to **individual products** seeking certification against the ProSustain™ standard

ProSustain Standard – Assessment results

Part I - Eligibility to join the Certification Scheme

- Overall score (%)
- Gap analysis against minimum requirements (>50% of individual requirements)
- Decision on eligibility

(all results for internal use only)

Part II Product Sustainability Management

- Overall score (%)
- Detailed scores for each focus area
- Overall maturity rating

4: 85-100%
3: 70-85%
2: 50-70%
1: 30-50%

(public: overall maturity rating, main findings, conclusions and recommendations)
(internal: detailed scores for each focus area)

Part III Individual Product Sustainability Performance

Analysis and continual improvement

- Overall score (%)
- Detailed scores for each focus area
- Overall maturity rating (as for Part II)

Traceability

- Detailed maturity ratings for each focus area
- Overall maturity rating (1-4 against traceability maturity criteria)

(public: overall maturity rating, main findings, conclusions and recommendations)
(internal: detailed scores/maturity ratings for each focus area)

Scope of the Assessment of the Traceability System

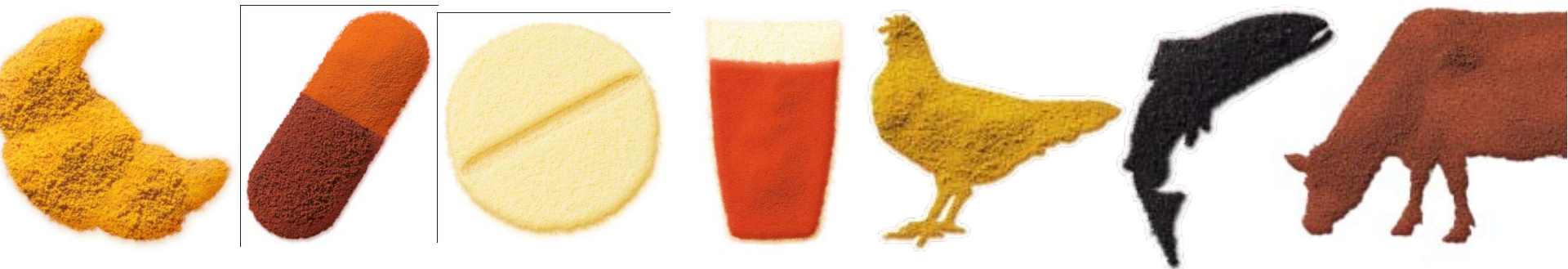
■ Scope of the assessment

- The assessment of the traceability system will be carried out specifically for the product being certified and focusing on the following areas.

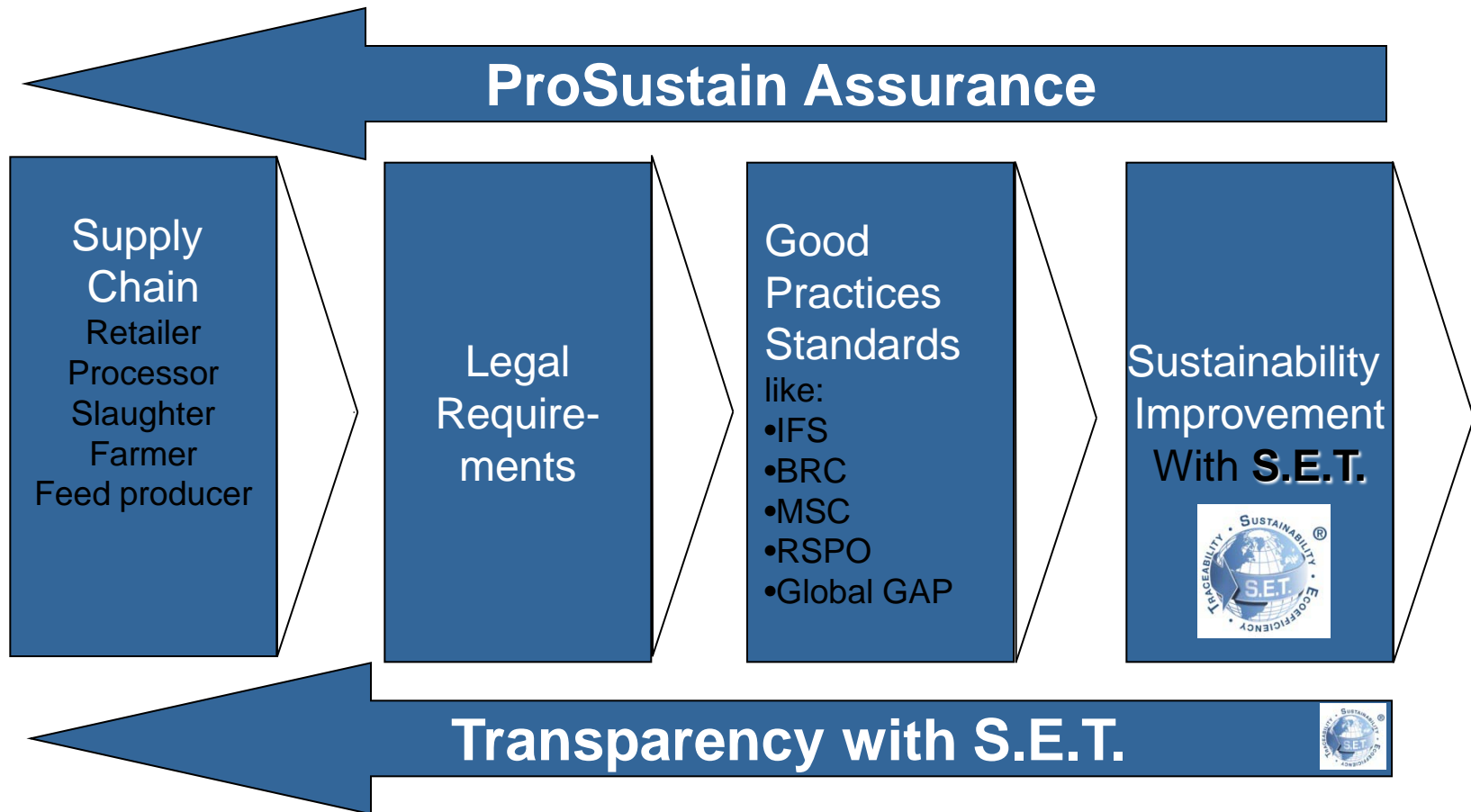
■ Focus areas

- Traceability system objectives
- Definition of products
- Supply chain placement
- Establishment of procedures
- Material flow
- Documentation requirements
- Structure and responsibilities
- Training
- Supply chain coordination
- Monitoring
- Internal external audit

Conclusion



S.E.T. meets ProSustain



S.E.T. helps to manage sustainability



The S.E.T. Initiative

Are you looking for ...

- A way to differentiate?
- Comprehensive product sustainability solutions?
- A viable platform for measuring and managing sustainability?
- A sustainability concept that will help you meet product sustainability standards such as ProSustain?
- Sustainability and traceability throughout the value chain, from ingredients to consumer goods?

If so, Use The S.E.T. Initiative of BASF

Thank you for your attention!!

